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Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty Docket No.	CISCP601C1
	Application No.:	09/435,246
	Inventor	GREGORY G. RALEIGH
	Group	2734 2634
	Filing Date	November 5, 1999

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
CF	AA	4,337,376	06/1982	Gruenberg	179	2 EB	12/1979
CF	AB	4,710,944	12/1987	Nossen	375	40	10/1986
CF	AC	5,134,715	07/1992	Parl et al.	455	64	11/1989
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CF	AF	5,345,599	09/1994	Paulraj et al.	455	49.1	02/1992
CF	AG	5,471,647	11/1995	Gerlach et al.	455	63	04/1993
CF	AH	5,479,444	12/1995	Malkamaki et al.	375	231	02/1994
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CF	AK	5,548,819	08/1996	Robb	455	59	08/1995
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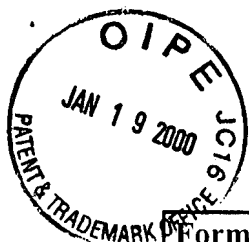
Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
CF	AN	WO 95/22873	08/1995	PCT	—	—		
CF	AO	WO 96/30964	10/1996	PCT	—	—		
CF	AP	WO 98/09381	03/1998	PCT	—	—		

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
CF	AQ	Hirôno et al., "Digital terrestrial television broadcasting with OFDM - A study on the performance of single frequency networks" 1996, Int'l Broadcasting Convention, p. 178-183.
Examiner <i>Chet Mc J</i>		Date Considered <i>2/28/01</i>

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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CF	BA	5,634,199	05/1997	Gerlach et al.	455	63	04/1995
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CF	BC	5,649,287	07/1997	Forssen et al.	370	312	03/1995
CF	BD	5,691,727	11/1997	Cyzs	342	361	12/1995
CF	BE	5,752,173	05/1998	Tsujimoto	455	137	06/1995
CF	BF	5,809,019	09/1998	Ichihara et al.	370	334	04/1996
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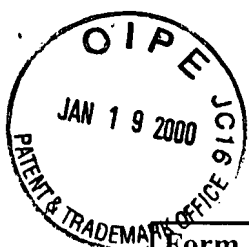
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Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
CF	BI	WO 98/09395	03/1998	PCT	—	—		
CF	BJ	0253465	03/1987	EPO	—	—		

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CF	BK	P.A. Voois, "Two-dimensional signal processing for magnetic storage systems", 1993, Ph.D. Thesis, Stanford University, pp. 1-136.
CF	BL	Biglieri et al., "Introduction to trellis coded modulation with applications", 1991, MacMillan Publishing.
CF	BM	P. Lancaster, "Theory of matrices", 1969, Academic Press, Chap. 2.
CF	BN	Raleigh et al., "Spatio-temporal coding for wireless communications", 1996, IEEE Transactions on Communications.
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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	CA						

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
CF	CB	WO 98/09395	03/1998	PCT	1	1		

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Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
CF	CC	Justin C.I. Chuang, "Burst coherent demodulation with combined symbol timing, frequency offset estimation and diversity selection", 1991, IEEE, Vol. 39, no. 7, pp. 1157-1164.
CF	CD	Leonard J. Cimini, Jr., "Analysis and simulation of a digital mobile channel using orthogonal frequency division multiplexing", 1985, IEEE, Vol. 33, No. 7, pp. 665-675.
CF	CE	Kouichi Ohkawa, "Performance of multicarrier trellis-coded 8PSK using frequency hopping in rayleigh fading channels", 1994, Not. Conference Publication - Institution of Engineers, Vol. 1, pp. 145-149.
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CF	CG	Hirofumi Ichikawa, "Frequency diversity effects in multicarrier digital radio systems", 1991, Electronics and Communications in Japan, Prt. 1, Vol. 74, No. 8, pp. 70-77.
Examiner	<i>Chieh Min Ja</i> Date Considered <i>2/28/01</i>	

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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	DA						

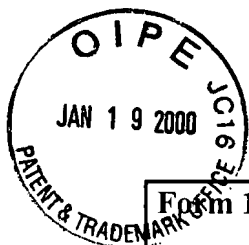
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Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
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CF	DD	Cover et al., "Elements of information theory", 1991, New York: John Wiley, Chp. 2, pps. 12-49, Chp. 8 pps. 183-223, and Chap. 10 pps. 239-265
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CF	DF	W.C. Jakes, "Microwave mobile communications", 1974, New York: John Wiley, Chps. 1, 5, and 6.
CF	DG	Braun et al., "A physical mobile radio channel model", 1991, IEEE Vehicular Technology, Vol. 40, pps. 472-482.
CF	DH	Bryson et al., "Applied optimal control", 1968, Washington D.C. Hemisphere Publishing, pps. 24-29.
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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	EA						

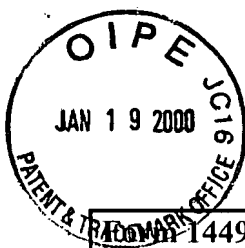
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Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	EB							

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cf	EF	R. Monnier, "Digital television broadcasting with high spectral efficiency", 1992, IEEE Conference Pub. No. 358, pps. 380-384.
cf	EG	Enrico Del Re, "Digital Multicarrier demodulator for regenerative communication satellites", 1988, Alta Frequenza, Vol. 57, No. 10, pps. 545-559.
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<div>7</div> <div>Information Disclosure Statement By Applicant</div> <div>(Use Several Sheets if Necessary)</div>	Attorney Docket No.	CISCP601C1
	Application No.:	09/435,246
	Inventor	GREGORY G. RALEIGH
	Group	2734 2634
	Filing Date	November 5, 1999

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	FA						

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
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CF	FC	Youko Omori, "Multicarrier 16QAM system in land mobile communications", 1994, IEICE Transactions on Communications, Vol. E77-B, No. 5, pps. 545-559.
CF	FD	Fulvio Ananasso, "Clock synchronous multicarrier demodulator for multi-frequency TDMA communications satellites", 1990, IEEE International Conference on Communications, Col. 3, pps. 1059-1063.
CF	FE	M. Friese, "Multicarrier modulation with low peak-to-average power ratio", 1996, Electronics Letters, Vol. 32, No. 8, pps. 713-714.
CF	FF	Adil Benyassine, "Optimal subchannel structuring and basis selection for discrete multicarrier modulation", 1995, IEEE Communications Theory Mini-Conference Proceedings, CTMC, pps. 97-101.
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Examiner <i>Chick M. Jr</i>		Date Considered <i>5/28/01</i>

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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	GA						

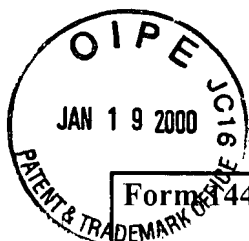
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Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
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cf	GD	C.E. Shannon, "Mathematical theory of communications: Part I and Part II", 1948, The Bell System Journal, pps. 379-423, 623-656.
cf	GE	Fectel et al., "Optional feedforward estimation of frequency-selective fading radio channels using statistical channel information", 1992, in Proc. SUPERCOMM/ICC '92, Vol. 2.
cf	GF	Brandenburg et al., "Capacity of the gaussian channel with memory: the multivariate case", 1993, Bell System Technical Journal, Vol. 53, pps. 745-78.
cf	GG	Cheng et al., "Gaussian multiaccess channels with ISI: Capacity region and multiuser water-filling", 1993, IEEE Trans. Inform. Theory, Vol. 39(3), pps. 773-785.
cf	GH	J. Salz, "Digital transmission over cross-coupled linear channels", 1985, AT&T Tech. Journal, Vol. 64(6), pps. 1147-1159,
Examiner <i>Chet Mc L</i>		Date Considered <i>2/28/01</i>

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Form 449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty Docket No.	CISCP601C1
	Application No.:	09/435,246
	Inventor	GREGORY G. RALEIGH
	Group	2734 2634
	Filing Date	November 5, 1999

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
	HA						

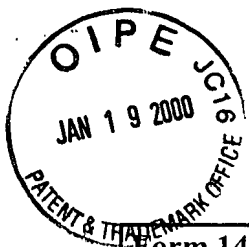
Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
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CF	HE	Yang et al., "Joint transmitter-receiver optimization for multi-input multi-output systems with decision feedback", 1994, IEEE Trans. Information Theory, Vol. 40(5), pps. 1334-1347.
CF	HF	Cox et al., "Distributions of multipath delay spread and average excess delay for 910 Mhz urban mobile radio paths", 1975, IEEE Trans. Antennas and Prop., Vol. Ap-23, pps. 206-213.
CF	HG	Weinstein et al., "Data transmission by frequency-division multiplexing using the discrete fourier transform", 1971, IEEE transactions on communications, vol. 19(5), pps. 628-634.
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Form 1449 (Modified)

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Statement By Applicant**

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U.S. Patent Documents

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Foreign Patent or Published Foreign Patent Application

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CF	IC	Ruiz et al., "Discrete multiple tone modulation with coset coding for the spectrally shaped channel", 1992, IEEE Trans. Commun, Vol. 40(6), pps. 1012-1029.
CF	ID	R.M. Gray, "On the asymptotic eigenvalue distribution of toeplitz matrices", 1972, IEEE Trans. Information Theory, Vol. 18, pps. 725-730.
CF	IE	G. Forney, "Maximum-likelihood sequence estimation of digital sequences in the presence of intersymbol interference", 1972, IEEE Trans. Inform. Theory, Vol. IT-18(3), pps. 363-378,
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